In the Claims

All Claims are shown below in revised format.

Claims 1, 9 and 12 are amended.

Claim 2, 3, 4 and 19 were previously cancelled.

1. (Currently Amended) A method for monitoring and controlling power usage among a plurality of facilities, for reducing a real-time aggregate power load across said plurality of facilities, said method comprising:

providing a remotely controllable power control device on at least one power consuming device at each facility;

providing a wireless communication network including a plurality of two-way RF node components, wherein said two-way RF node components serve to both communicate with other ones of said two-way RF node components; and to communicate within said facilities with said remotely controllable power control devices;

remotely monitoring power usage at each facility from one location using said wireless communication network, wherein said one location can control said remotely controllable power control devices using said wireless communication network; and

activating and deactivating said power consuming devices by said remotely controllable power control devices from said one location, based on said remotely monitored power usage among said plurality of facilities.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Original) The method of claim 1 wherein said step of monitoring power usage is performed by current sensing.

6. (Original) The method of claim 5 wherein an electric utility meter at one of said facilities is not affected by said monitoring of power usage at said facility.

7. (Original) The method of claim 1 wherein said step of monitoring power usage is performed by voltage sensing.

8. (Original) The method of claim 7 wherein an electric utility meter at one of said facilities is not affected by said monitoring of power usage at said facility.

9. (Currently Amended) A system for monitoring and controlling power usage among a plurality of facilities, for reducing a real-time aggregate power load across said plurality of facilities, said system comprising:

a device controller coupled to at least one power consuming device at each facility, said device controller to control said at least one power consuming device;

a power measurement device within each facility, to measure power consumption by power consuming devices within said facility;

a communications network, in communication with said device controllers and said power measurement devices, said communications network including a plurality of two-way RF node components, wherein said two-way RF node components serve to both communicate with other ones of said two-way RF node components; and to communicate with said device controllers and said power measurement devices;

a central location, in communication with said communications network, to remotely monitor power usage at each facility as measured by said power measurement device;

wherein said central location communicates with said device controllers over said communications network in order to individually control said at least one power consuming device at each facility.

10. (Previously Presented) The system of claim 9 wherein said device controller controls said power consuming device by activating and deactivating said power consuming device.

11. (Original) The system of claim 9 wherein said system monitors and controls power usage in order to limit power consumption by said plurality of facilities.

12. (Currently Amended) A system for controlling energy distribution to energy consumers comprising:

a centralized data center;

a plurality of device controllers in communication with said centralized data center through a communications network, said communications network including a plurality of two-way RF node components, wherein said two-way RF node components serve to both communicate with other ones of said two-way RF node components; and to communicate with said device controllers;

a plurality of parameter measuring devices in communication with said centralized data center through said communications network;

wherein said centralized data center reads parameters from said parameter measuring devices, computes control signals according to efficient power control algorithms operating on said parameters, said algorithms for reducing a real-time aggregate power load across a plurality of said energy consumers, and communicates said control signals to said device controllers.

13. (Original) The system according to claim 12 wherein efficient power control algorithms compute said control signals to minimize power consumption by computing cost optimized power distribution over time.

14. (Original) The system according to claim 12 wherein said parameters are communicated in real time and wherein said control signals are constantly re-computed according to changes in said parameters.

15. (Original) The system according to claim 12 wherein said parameters include electrical power levels.

16. (Original) The system according to claim 12 wherein said measuring devices are deployed in electrical proximity to individual electrical loads and between said individual electrical loads and standard power distribution metering devices.

17. (Original) The system according to claim 12 wherein said device controllers are deployed in electrical proximity to individual electrical loads and between said individual electrical loads and standard power distribution metering devices.

18. (Original) The system according to claim 12 further comprising facility controllers in communication between said device controllers and said centralized data center.

19. (Cancelled)

20. (Original) The system according to claim 18 wherein said centralized data center and said facility controller are in wireless communication.